

August 24, 2018

The Vermont Department of Health (Health Department) Drinking Water Guidance document (Guidance) contains three types of values that may be used in the evaluation of drinking water supplies:

- Primary Maximum Contaminant Levels (MCLs) are legally enforceable standards promulgated by the United States Environmental Protection Agency (U.S. EPA) for use in the regulation of public water systems. Each value represents the highest level of a chemical that is allowed in a public drinking water supply. An MCL reflects consideration of public health concerns due to exposure via ingestion as drinking water and potentially other factors such as cost-benefit analysis, detection limit, and best available treatment technology. MCLs are derived for chemicals with carcinogenic and adverse non-carcinogenic health endpoints.
- Vermont Health Advisories (VHAs) are numeric guidelines researched and derived by the Health Department for chemicals that do not have a federal MCL. A VHA reflects consideration of public health concerns and analytical laboratory reporting limits. VHAs consider ingestion exposure for all chemicals as well as potential exposure via inhalation of vapors due to household water use for those chemicals that easily volatilize. VHAs are derived for chemicals with carcinogenic and adverse non-carcinogenic health endpoints. If a VHA is exceeded it does not necessarily follow that adverse health effects may occur, but exposure should be minimized while further evaluation of the water supply is conducted.
- Vermont Action Levels (VALs) are numeric guidelines researched and derived by
 the Health Department for a small number of chemicals that have MCLs but are
 of specific public health interest for Vermont Public Water Systems. Thus, these
 few chemicals have both a federal MCL and a Health Department derived value.
 VALs are concentrations at or above which a specific (priority) procedure will be
 followed in order to provide adequate protection of public health. The process
 employed to derive VALs is the same as for VHAs.

Collectively, these values provide critical information for use in the evaluation of potential health implications that may be associated with exposure to chemicals of concern in tap water.

Most existing Health Department derived values were developed in 2002. Since that time:

- Updated toxicity information has become available for several chemicals in the document.
- Guidance values have been requested to be developed for additional chemicals.
- There has been increased consideration of potentially sensitive subpopulations and/or life-stages.
- There has been increased consideration of potential exposure via inhalation of vapors due to routine household water use.
- Updated information has become available regarding age-specific water ingestion rates.
- Quantitative human health risk assessment methodology has continued to evolve.

The current Health Department derivation process takes these factors, as well as others, into consideration. Health Department derived values are based on an incremental lifetime cancer risk of one-in-one million for carcinogenic effects and a hazard quotient of one for systemic, non-carcinogenic effects. In those instances where a derived value is less than a reasonable analytical laboratory reporting limit, the reporting limit is used.

All Health Department guidance values available to date, both federal MCLs and Department derived values, are presented in Table 1. For the 2018 Guidance, approximately one-third of the chemicals in the 2002 Guidance were reviewed between 2015 and 2017 and revised as warranted. Chemicals with any changes since the 2002 Guidance or newly added are noted in **bold**.

In addition, U.S. EPA has also established non-mandatory National Secondary Drinking Water Regulations, referred to as secondary maximum contaminant levels (SMCLs), for 15 contaminants. These values, presented in Table 2, are non-enforceable guidelines that may assist public water systems in managing their drinking water for aesthetic considerations (such as taste, color, and odor) and/or cosmetic effects (such as tooth or skin discoloration).

Vermont Department of Health TABLE 1

2018 DRINKING WATER GUIDANCE

Chemical Name	CAS No.	VHA (μg/L) ^(a)	VAL (μg/L) ^(a)	MCL (μg/L) ^(a)
Acetone	67-64-1	949.8		
Acifluorfen, sodium	62476-59-9	4.5		
Alachlor	15972-60-8	4.5		2
Aldicarb	116-06-3	1 ^(b)		
		1 ^(b)		
Aldicarb sulfone	1646-88-4	1 ^(b)		
Aldicarb sulfoxide	1646-87-3			
Aldrin	309-00-2	0.1		
Ametryn	834-12-8	246.8		
Aminoethyl ethanolamine (AEEA)	111-41-1	20		
Ammonium sulfamate	7773-06-0	914.3		
Anatoxin-a	64285-06-9	0.5		
Anthracene	120-12-7	342.9		_
Antimony	7440-36-0			6
Arsenic	7440-38-2			10
Asbestos	1332-21-4			7E+6 fibers/L (longer than 10μm)
Atrazine	1912-24-9	550.0		3
Azoxystrobin	131860-33-8	558.3		0000
Barium	7440-39-3	4.7		2000
Bendiocarb Benefin (Benflurelin)	22781-23-3	1.7		
Benefin (Benfluralin)	1861-40-1	5.5		
Benomyl	17804-35-2	9.5		
Bensulide	741-58-2	15.6		
Bentazon	25057-89-0	453.1		_
Benzene	71-43-2		0.5	5
Benzo(a)pyrene	50-32-8			0.2
Beryllium	7440-41-7	45.5		4
Bis(2-chloro-1-methyl ethyl) ether	108-60-1	45.7		
Bispyribac sodium	125401-92-5	300.2		
Boron	7440-42-8	869.6		
Boscalid	188425-85-6	185.7		
Bromacil	314-40-9	110.9		10
Bromate	15541-45-4			10
Bromochloromethane	74-97-5	7.7		
Bromomethane (Methyl bromide)	74-83-9	4.8		
Bromoxynil	1689-84-5	1		
Butylate	2008-41-5	113.6		_
Cadmium	7440-43-9			5
Carbaryl	63-25-2	26		40
Carbofuran	1563-66-2			40
Carbon tetrachloride	56-23-5		0.5	5
Carboxin	5234-68-4	22.3 47.9		
Carfentrazone ethyl	128639-02-1			
Chloramben	133-90-4 500008-45-7	68.6		
Chlorantraniliprole		5208.6		
Chlordane	12789-03-6	457.1		2
Chlorflurenol	2536-31-4	457.1		1222(C)
Chlorine	7782-50-5			4000 ^(c)
Chlorite	7758-19-2			1000
Chlorobenzene	108-90-7	4.0		100
Chlorothalonil	1897-45-6	1.6		
Chlorpyrifos Chromium (total)	2921-88-2	20		100
Chromium (total)	7440-47-3	(4)		100
Copper (at tap)	7440-50-8	1300 ^(d)		
Cyanazine	21725-46-2	1		000
Cyanide	143-33-9	 		200
Cylindrospermopsin	NA 75.00.0	0.5		222
Dalapon	75-99-0			200
Dazomet Pi(O attails and O attails and	533-74-4	88		400
Di(2-ethylhexyl)adipate	103-23-1			400
Di(2-ethylhexyl)phthalate	117-81-7	1	0.00	6
Dibromochloropropane	96-12-8		0.02	0.2
Dichlorobenzene (ortho)	95-50-1			600

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Dichlorobenzene (para)	106-46-7			75
Dichloroethane (1,1)	75-34-3	70		
Dichloroethane (1,2)	107-06-2		0.5	5
Dichloroethene (1,1)	75-35-4			7
Dichloroethene (cis-1,2)	156-59-2			70
Dichloroethene (trans-1,2)	156-60-5			100
Dichlorophenoxyacetic acid (2,4)	94-75-7			70
Dichloroprop	120-36-5	140		
Dichloropropane (1,2)	78-87-5	-	0.5	5
Dieldrin	60-57-1	0.02		•
Diethylenetriamine (DETA)	111-40-0	5154		
Dimethrin	70-38-2	2000		
Dinoseb	88-85-7	2000		7
Dioxane (1,4)	123-91-1	0.3		I
Diphenamid Diphenamid	957-51-7	200		
Diquat	85-00-7			20
Disulfoton	298-04-4	0.3		
Diuron	330-54-1	10		
Endothall	145-73-3			100
Endrin	72-20-8			2
Erioglaucine	2650-18-2	7211.4		
Ethylbenzene	100-41-4			700
Ethylene dibromide	106-93-4			0.05
Fenamiphos	22224-92-6	2		
Fluoride	7681-49-4			4000
Fluxapyroxad	907204-31-3	44.4		
Fonofos	944-22-9	10		
Formaldehyde	50-00-0	1000		
Glyphosate	1071-83-6			700
Gross Alpha (adjusted)	NA NA			15 pCi/L ^(f)
	NA NA			60
Haloacetic acids (total)		46		60
Halofenozide	112226-61-6			
Halosufuron-methyl	100784-20-1	990		
Heptachlor	76-44-8			0.4
Heptachlor epoxide	1024-57-3			0.2
Hexachlorobenzene	118-74-1		0.1	1
Hexachlorocyclopentadiene	77-47-4			50
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	0.3		
Lead (at tap)	7439-92-1	15 ^(d)		
Lead				
	7439-92-1	1 1		
I indane	7439-92-1 58-89-9	1		0.2
Lindane Maneh	58-89-9			0.2
Maneb	58-89-9 12427-38-2	35		0.2
Maneb Manganese	58-89-9 12427-38-2 7439-96-5			
Maneb Manganese Mercury (inorganic)	58-89-9 12427-38-2 7439-96-5 7487-94-7	35		2
Maneb Manganese Mercury (inorganic) Methoxychlor	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5	35 300		
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3	35 300 510.6		2
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0	35 300 510.6		2
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE)	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4	35 300 510.6		2 40
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2	35 300 510.6 2 11.3		2
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2	35 300 510.6 2 11.3		2 40
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA	35 300 510.6 2 11.3		2 40
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2	35 300 510.6 2 11.3		2 40 5
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA	35 300 510.6 2 11.3		2 40
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7	35 300 510.6 2 11.3 70 0.16 5.7		2 40 5
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3	35 300 510.6 2 11.3 70 0.16 5.7		2 40 5
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0	35 300 510.6 2 11.3 70 0.16 5.7		2 40 5 4000 ^(c)
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N)	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8	35 300 510.6 2 11.3 70 0.16 5.7		2 40 5 4000 ^(c)
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total)	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA	35 300 510.6 2 11.3 70 0.16 5.7		2 40 5 4000 ^(c)
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N)	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0	35 300 510.6 2 11.3 70 0.16 5.7		2 40 5 4000 ^(c)
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N) O-Phenylphenol (OPP)	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0 90-43-7	35 300 510.6 2 11.3 70 0.16 5.7		2 40 5 4000 ^(c)
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N) O-Phenylphenol (OPP) Octahydro-1,3,5,7-tetranitro-1,2,3,5,7-tetrazocine (HMX)	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0 90-43-7 2691-41-0	35 300 510.6 2 11.3 70 0.16 5.7		2 40 5 4000 ^(c) 10000 10000 10000
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N) O-Phenylphenol (OPP) Octahydro-1,3,5,7-tetranitro-1,2,3,5,7-tetrazocine (HMX) Oxamyl	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0 90-43-7 2691-41-0 23135-22-0	35 300 510.6 2 11.3 70 0.16 5.7 0.5 100		2 40 5 4000 ^(c)
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N) O-Phenylphenol (OPP) Octahydro-1,3,5,7-tetranitro-1,2,3,5,7-tetrazocine (HMX) Oxamyl Paraquat	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0 90-43-7 2691-41-0 23135-22-0 1910-42-5	35 300 510.6 2 11.3 70 0.16 5.7		2 40 5 4000 ^(c) 10000 10000 10000
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N) O-Phenylphenol (OPP) Octahydro-1,3,5,7-tetranitro-1,2,3,5,7-tetrazocine (HMX) Oxamyl Paraquat Pentachlorophenol	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0 90-43-7 2691-41-0 23135-22-0 1910-42-5 87-86-5	35 300 510.6 2 11.3 70 0.16 5.7 0.5 100	0.1	2 40 5 4000 ^(c) 10000 10000 10000
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N) O-Phenylphenol (OPP) Octahydro-1,3,5,7-tetranitro-1,2,3,5,7-tetrazocine (HMX) Oxamyl Paraquat Pentachlorophenol Pentaerythriol tetranitrate (PETN)	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0 90-43-7 2691-41-0 23135-22-0 1910-42-5	35 300 510.6 2 11.3 70 0.16 5.7 0.5 100	0.1	2 40 5 4000 ^(c) 10000 10000 10000
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N) O-Phenylphenol (OPP) Octahydro-1,3,5,7-tetranitro-1,2,3,5,7-tetrazocine (HMX) Oxamyl Paraquat Pentachlorophenol	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0 90-43-7 2691-41-0 23135-22-0 1910-42-5 87-86-5	35 300 510.6 2 11.3 70 0.16 5.7 0.5 100 764 57.1	0.1	2 40 5 4000 ^(c) 10000 10000 10000
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N) O-Phenylphenol (OPP) Octahydro-1,3,5,7-tetranitro-1,2,3,5,7-tetrazocine (HMX) Oxamyl Paraquat Pentachlorophenol Pentaerythriol tetranitrate (PETN)	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0 90-43-7 2691-41-0 23135-22-0 1910-42-5 87-86-5 78-11-5	35 300 510.6 2 11.3 70 0.16 5.7 0.5 100	0.1	2 40 5 4000 ^(c) 10000 10000 10000
Maneb Manganese Mercury (inorganic) Methoxychlor Methyl ethyl ketone Methyl parathion Methyl tert butyl ether (MTBE) Methylene chloride Metolachlor Microcystin Molybdenum Monochloramine Naphthalene Nickel Nitrate (as N) Nitrates/Nitrites (total) Nitrite (as N) O-Phenylphenol (OPP) Octahydro-1,3,5,7-tetranitro-1,2,3,5,7-tetrazocine (HMX) Oxamyl Paraquat Pentachlorophenol Pentaerythriol tetranitrate (PETN)	58-89-9 12427-38-2 7439-96-5 7487-94-7 72-43-5 78-93-3 298-00-0 1634-04-4 75-09-2 51218-45-2 NA 7439-98-7 10599-90-3 91-20-3 7440-02-0 14797-55-8 NA 14797-65-0 90-43-7 2691-41-0 23135-22-0 1910-42-5 87-86-5 78-11-5 1479-73-0	35 300 510.6 2 11.3 70 0.16 5.7 0.5 100 764 57.1	0.1	2 40 5 4000 ^(c) 10000 10000 10000

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Perfluorononanoic acid (PFNA)	375-95-1	0.02 ^(g)		
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.02 ^(g)		
Perfluorooctanoic acid (PFOA)	335-67-1	0.02 ^(g)		
Picloram	1918-02-1			500
Polychlorinated Biphenyls	1336-36-3			0.5
Propachlor	1918-16-7	90		
Propham	122-42-9	100		
Propoxur (Baygon)	114-26-1	6.2		
Quinclorac	84087-01-4	369		
Radium ^{226 & 228}	7440-14-4			5 pCi/L
Radon	010043-92-2	4000 pCi/L ^(h)		
Selenium	7782-49-2			50
Simazine	122-34-9			4
Styrene	100-42-5			100
Tall oil hydroxyethyl imidazoline	61791-39-7	118		
Tartrazine	1934-21-0	1904.8		
Tetrachlorodibenzo-p-dioxin (2,3,7,8)	1746-01-6			3.00E-05
Tetrachloroethane (1,1,1,2)	630-20-6	70		
Tetrachloroethylene	127-18-4		1	5
Thallium	7440-28-0			2
Toluene	108-88-3			1000
Toxaphene	8001-35-2			3
Triazole (1,2,4)	288-88-0	20		
Triazole metabolites (Conjugated)	86362-20-1, 28711-29-7 and Triazolylpyruvic acid	102.9 ⁽ⁱ⁾		
Trichlorobenzene (1,2,3)	87-61-6	0.9		
Trichlorobenzene (1,2,4)	120-82-1	0.0		70
Trichloroethane (1,1,1)	71-55-6			200
Trichloroethane (1,1,2)	79-00-5			5
Trichloroethylene	79-01-6		0.5	5
Trichlorophenoxyacetic acid (2,4,5)	93-76-5	70		·
Trichlorophenoxypropionic acid (2,4,5)	93-72-1			50
Trichloropropane (1,2,3)	96-18-4	0.02		
Triclopyr	55335-06-3	165		
Trihalomethanes (total)	NA			80
Trimethyl benzene (1,2,3)	526-73-8	23.2 ^(j)		
Trimethyl benzene (1,2,4)	95-63-6	23.2 ^(j)		
Trimethyl benzene (1,3,5)	108-67-8	23.2 ^(j)		
Trinitrotoluene (2,4,6) (TNT)	118-96-7	0.8		
Triticonazole	131983-72-7	194.3		
Uranium	7440-61-1			20 ^(k)
Vinyl chloride	75-01-4		0.5	2
Xylenes	1330-20-7			10000
Zineb	142-14-3	350		
Notes:		· · · · · · · · · · · · · · · · · · ·		

Notes:

BOLD - value revised from 2002 guidance or added since 2002 list

Value adjusted to reflect analytical laboratory reporting limit

- NA Not Applicable as represents more than one analyte and for microcystin and cylindorspermopsin many congeners may react in the assay
- (a) All units are micrograms per Liter (μ g/L) [parts per billion (ppb)] unless otherwise noted
- (b) Sum of of Aldicarb, Aldicarb sulfone and Aldicarb sulfoxide not to exceed 1µg/L for VHA or PAL.
- (c) EPA 1998 Final Rule for Disinfectants and Disinfection By-products Maximum Residual Disinfection (MRDL)
- (d) Copper and Lead are regulated using "Action Levels" (40CFR141.8)
- (e) Value for meta based on data for ortho dichlorobenzene
- (f) Adjusted excludes Uranium and Radon
- (g) Sum of PFHpA, PFHxS, PFNA, PFOA and PFOS not to exceed 0.02 µg/L for VHA; not to exceed 0.002µg/L for PAL.
- (h)- Water results should be interepreted after air results are obtained
- (i) Sum of conjugated triazole metabolites (Triazolylalanine, Triazolylacetic acid, and Triazolylpyruvic acid) not to exceed 102.9 ug/L for VHA; not to exceed 51.4 ug/L for PAL.
- (j) Sum of 1,2,3-TMB, 1,2,4-TMB and 1,3,5-TMB isomers not exceed 23.2 µg/L for VHA; not to exceed 2.3 µg/L for PAL
- (k) Uranium MCL is the Vermont MCL. Federal MCL is 30 µg/L.

Vermont Department of Health Table 2

U.S. EPA Secondary Maximum Contaminant Levels^(a)

Chemical Name	CAS No.	SMCL (µg/L) ^(b)
Aluminum	7429-90-5	50-200
Chloride	7647-14-5	250000
Color	NA	15 Color Units
Copper	7440-50-8	1000
Corrosivity	NA	non-corrosive
Fluoride	7681-49-4	2000
Foaming Agents	NA	500
Iron	7439-89-6	300
Manganese	7439-96-5	50
Odor	NA	3 threshold odor number
рН	NA	6.5-8.5 ^(c)
Silver	7440-22-4	100
Sodium	7440-23-5	250000 ^(d)
Sulfate	7757-82-6	250000
Total Dissolved Solids	NA	500000
Zinc	7440-66-6	5000

Notes:

NA - Not Applicable

SMCL - U.S. EPA Secondary Maximum Contaminant Level

(a) - The U.S. EPA MCLs presented in Attachment 1 are Primary Maximum Contaminant Levels. For reference purposes, the U.S. EPA Secondary MCLs above are used in regulation of contaminants in drinking water that primarily affect the aesthetic qualities relating to the public acceptance of drinking water (40CFR§143.3). Refer to Chapter 21, the Water Supply Rule, Subchapter 6.13. SMCLs accessed online 1/25/2018 at

- (b) All units are micrograms per Liter (µg/L) [parts per billion (ppb)] unless otherwise noted
- (c) pH standard units
- (d) Vermont Secondary Maximum Contaminant Level; Vermont Water Supply Rule 2010, Table 6-2.